# State Machine Tool Apprenticeship Advisory Committee Meeting Minutes Thursday, February 21, 2013

Moraine Park Technical College West Bend, WI

# MINUTES DRAFT

#### **Members Present**

Nichols, Jim Co-Chair; KLH Industries

Haban, Eric LDI Industries Hall, Ray Mercury Marine

Heins, Ken KLH

Johnson, Greg PowerTest

Sloma, John L. IAM – AW LL516

Williams, John Rexnord Industries LLC

#### **Members Absent**

Dennis, Mark Co-Chair; Fox Valley Tool & Die

Brockelman, Doug Stanek Tool Corp
Rainey, Tony Master Lock Company
Verfueth, Henry Bernis Manufacturing

#### **Consultants and Guests**

Arndt. Marcia Moraine Park Technical College Cook, James Madison Area Technical College Bureau of Apprenticeship Standards Haug, Becky Janecek. Ed Waukesha County Technical College Kiel, Todd Northeast Wisconsin Technical College Morgan, Karen Bureau of Apprenticeship Standards Bureau of Apprenticeship Standards Perkofski, Lisa Robakowski, Barb Bureau of Apprenticeship Standards Rice, Fred Moraine Park Technical College Bureau of Apprenticeship Standards Smith, Owen

Thompson, Mike Lakeshore Technical College

Wood, Marge Wisconsin Technical College System

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- 1. The meeting was called to order by Committee Co-Chair Jim Nichols at 10:03 AM in conformance with the Wisconsin Open Meeting Law.
- 2. Introductions were made and roll call was taken.
- 3. Minutes of the September 6, 2012 Machine Tool Advisory Committee meeting were approved with one correction: Mike Cattalino's employer is Fox Valley Technical College.

### 4. Old Business

#### a. Roster

Owen Smith distributed an updated committee roster, and noted these changes:

- The Bureau renewed all members' terms for the standard three-year period, because all members' terms had expired prior to the September 2012 meeting.
- Eric Haban from LDI Industries is a new member. He is a graduate of both the youth and adult apprenticeship programs.
- Bemis Manufacturing will nominate a replacement for Henry Verfuerth, who has retired. Committee members advised Owen Smith that the replacement will likely be Mark Krieger.
- The committee needs one additional employ<u>ee</u> member. Owen clarified that the new member can be from any trade underneath the committee.
  - o BAS is contacting manufacturers for candidates.

# b. NIMS Pilot Update

- Background: members voted at the November 9, 2010 meeting to make all machining occupations into hybrid apprenticeships using the NIMS apprenticeship model; and members voted at the September 6, 2012 meeting to postpone implementation until examining the results of the two-year NIMS pilot program at Waukesha County Technical College (WCTC), which began in fall 2012.
- WCTC Instructor Ed Janecek reported key features of the two-year pilot.
  - Paid Related Instruction (PRI) is competency-based; includes an estimated 1,024 hours; and addresses NIMS Level I through program competencies and Knowledge, Skills, Abilities and Other Characteristics (KSAO's). Competencies include machine safety, lock-out/tag-out, machine operations, material handling, haz-mat, lay-out, benchwork, sawing, job process planning, and more. KSAO's include quality control, job planning, engineering drawings, and more etc. PRI is divided between theory and hands-on shop work.
  - Because the program is competency-based, the class meets 16 hours, per week (two work days) and students are graded on the competency portion as either pass or fail (students are tested on other portions by graded exam). To pass the competency portion and earn the NIMS credential, students must produce a part to 100% of features, e.g. no errors. This reflects the NIMS philosophy that training must model real-world business relations: a customer would not accept a part produced with errors.
  - Seven students are currently enrolled.
- Members and consultants discussed how the NIMS credential is funded. The grant funding the two-year pilot pays for the NIMS credential. However, technical colleges, as public institutions, cannot require a student to pay for the credential, Todd Kiel reported. If the program were to become statewide, the scope could perhaps influence negotiations towards an agreement to fund the fee, Mike Thompson and Marge Wood added.
- Ed Janecek reported that employers have expressed concerned about what would follow the pilot after it concludes. Some employers said they would enroll apprentices in a continuation program, if one occurs.

# c. SAGE Update

- Becky Haug, SAGE Outreach Coordinator, asked committee members review and approve the "green skills" curriculum competencies for inclusion in Paid Related Instruction for all trades, without increasing the overall total hours. The competencies address 5S, a workplace organization methodology consisting of five phases: sorting, straightening, sweeping, standardizing and sustaining. 5S was identified as a "green skills" training gap by a focus group consisting of Doug Brockelman, Jim Nichols, Mark Dennis, Mark Krueger, and Todd Kiel.
  - Members suggested the following changes: in competency six, "cutting" was added to describe "tooling" in the competency itself, the assessment criteria and the learning objectives. The revised competency reads, "Describe the machinist's role in the predictive maintenance cycle of *cutting* tooling and cutting fluids." A motion to approve the competency's with these changes was made by Ken Heins, seconded by Eric Haban, and approved by the committee.
- Becky Haug asked committee members to review and approve the focus group's request for training supplies to supplement the new curriculum. The focus group had recommend refractometers, which determine the concentration of coolant within a machine.
  - Ken Heins recommended coolant reclamation units instead, because the unit performs the same functions as the refractometer and removes the coolant that is recyclable. Committee members agreed that the coolant reclamation units would be a helpful purchase, if the SAGE grant has funding. Becky Haug will set up a conference call with the eight technical colleges that deliver the Machine Tool related instruction, and discuss how to proceed with purchasing.

#### d. Review of Standards & Work Processes

- Owen Smith distributed and discussed a table of revisions proposed by BAS. The revisions clarify current policies (ex. employers are not required to pay apprentices overtime for attending paid related instruction) or new policies that result from federal law changes in 29.29 (ex. definitions of "competency" and "hybrid" terms).
  - Members will discuss the changes further at the next meeting as part of a comprehensive review of all proposed revisions.
- Ken Heins distributed and discussed a new Exhibit A for the Electrical Discharge
  Machinist. Whereas the old Exhibit A used a broad term, "Basic Machine Tools," to
  describe learning other machine tools, the Exhibit A Ken proposed defines those tools
  in a way that aligns to the NIMS Level I curriculum.
  - Members voted and approved the new Exhibit A with one revision: the work process "Local Optional EDM Work Processes" was changed to "EDM Work Processes."

- Due to member absences, final review and approval of the standards was rescheduled for the fall meeting.
  - Members volunteered or nominated volunteers to review the remaining Exhibit A's and propose revisions. Owen Smith will coordinate a focus group before the next state committee meeting to finalize the proposed revisions. Focus group members will include:

I. Machinist: Greg Johnson, John Sloma

II. Mold Maker: Ray Hall

III. Tool Maker: Doug Brockelman

IV. Tool & Die: Jim Nichols, Tony Rainey

V. Patternmaker (all): BAS, John Williams, and Jim Nichols (BAS will combine all

patternmaker Exhibit A's into one)

# 5. New Business

# a. Machine Tool Trades Comparison Chart

Owen Smith distributed a chart comparing all Machine Tool trades by overall hours, hours of Paid Related Instruction, work processes, active apprentices and employer information. The chart was researched and produced by BAS Apprenticeship Training Representative Sandy Destree.

 Ken Heins asked about whether the technical colleges are providing 512 hours or 576 hours of paid related instruction. <u>Karen Morgan stated that BAS will</u> research the matter further with WTCS as part of the review of the committee's <u>State Standards.</u>

#### 6. WTCS Update (Marge Wood)

- Marge Wood distributed client reporting system demographics for program students for apprenticeship Paid Related Instruction (PRI) and Comparables (Industrial Sector). The first table provides system-wide Machine Trades apprentice PRI enrollments for academic/fiscal year ending June 30, 2012. The second table provides data on machiningrelated diplomas and Associates of Applied Science diplomas. Marge also distributed adult career pathways models from several technical colleges: the Moraine Park Technical College CNC approach; the Waukesha County Technical College Manu Technician to Tool and Die Approach; the Gateway Technical College CNC Bridge to CNC Production Technician Approach; and the Madison Area Technical College Manufacturing Approach.
  - Ken Heins asked whether there are data on how many certificate graduates go on to apprenticeship. Marge replied that the data available show how many machine tool apprentices who took varying numbers of associate's degrees but did not take another course as an apprentice. It is easier to tell who earns enough advanced standing that they do not need to go back to school. The annual average is approximately 50 apprentices.
- All technical colleges are sharing a \$14.9 million Trade Adjustment Assistance grant award for a four-year "Making the Future" project to develop, expand and improve advanced manufacturing career pathways. As part of the project, all technical colleges will receive Scientific Management Techniques, Inc.'s Standard Timing Model (STM) machine to

conduct skills assessment. The STM is a mechanical assessment tool used by industry to assess mechanical aptitude, skills, and instincts, such as troubleshooting ability, spatial recognition, quality differentiation, hand-eye coordination, cognitive reasoning ability, and more. It can be articulated into a number of different advanced manufacturing techniques and core competencies. The value added, Mike Thompson explained, is that the results of hands-on test have been correlated with four decades of research to job performance.

# 7. Review of Program participants

- Owen Smith distributed and reviewed two handouts: the current program participants; and a historical table of apprentices and employers by trade from 2000 – present. There are currently 332 active apprentices and 173 employers in the Machine Tool trades, a slight increase from the 316 apprentices reported at the fall 2012 meeting.
- Owen stated that BAS will be able to produce special data reports, such as the historical table, more easily once the staff implements new reporting software later this year.
  - Owen asked members if they would prefer additional data or treatments of the current data; members had no suggestions.
- 9. Next meeting date will be Thursday, September 19, 2013, at LOCATION PENDING
- 10. Meeting was adjourned at 3:00 PM.

Submitted by Owen Smith, Recorder